

Amendments to the Claims

A complete list of pending claims follows, with indicated amendments:

1. (Amended) A method for updating the content of a set of data accessible by a server of a cluster system, comprising the steps of:

providing first and second servers;

providing a network controller associated with each server, each network controller including a local power source and a local memory, wherein the local power source comprises a standby power source operable to provide power to local memory and a processor of the network controller in the event of a power failure in the network controller;

storing in the local memory of each network controller a copy of a set of data; and

performing a write operation to the memory of each network controller such that the content of the set of data of each network controller is the same.

2. (Original) The method for updating the content of a set of data accessible by a server of a cluster system of claim 1, wherein the first and second servers are geographically separate from one another.

3. (Original) The method for updating the content of a set of data accessible by a server of a cluster system of claim 1, wherein the set of data includes the metadata of the cluster system.

4. (Original) The method for updating the content of a set of data accessible by a server of a cluster system of claim 1, wherein the step of performing a write operation includes the step of transmitting an acknowledge signal to the other server following the completion of a successful write operation by a server.

5. (Original) The method for updating the content of a set of data accessible by a server of a cluster system of claim 4, wherein the write operation is atomic such that the results of the write operation are discarded in the event that an acknowledge signal is not received by each server.

6. (Original) The method for updating the content of a set of data accessible by a server of a cluster system of claim 1, wherein each network controller includes a local operating system for controlling communication between the network controllers.

7. (Amended) ~~A~~ The method for updating the content of a set of data accessible by a server of a cluster system ~~of claim 1, comprising wherein the step of performing a write operation comprises the steps of;~~

providing first and second servers;

providing a network controller associated with each server, each network controller including a local power source and a local memory;

storing in the local memory of each network controller a copy of a set of data; and

performing a write operation to the memory of each network controller such that the content of the set of data of each network controller is the same, wherein the write operation

includes the steps of:

determining at an initiating server that a write operation is to be performed;

instruction a peer server to perform the write operation;

performing the write operation at the peer server;

transmitting a first write acknowledge signal from the peer server to the initiating server;

receiving the first write acknowledge signal at the initiating server;

performing the write operation at the initiating server;

transmitting a second write acknowledge signal from the initiating server to the peer server; and

receiving the second write acknowledge signal at the peer server.

8. (Original) The method for updating the content of a set of data accessible by a server of a cluster system of claim 7, further comprising the step of discarding the result of the write operation if the first and second write acknowledge signals are not received within a predefined time period.

9. (Amended) A cluster system, comprising:
a first server including a network controller;
a second server including a network controller;
wherein the network controllers of the first and second servers each include a copy of a set of data describing the status of the cluster system; and

wherein the network controllers are coupled to ~~powered by~~ a standby local power source operable to provide standby power to the network controller such that the set of data is accessible despite the loss of ~~not lost upon an~~ operational power loss in of the associated server.

10. (Original) The cluster of claim 9, wherein the first server and the second server are geographically separate from one another.

11. (Original) The cluster of claim 9, wherein each network controller includes a local operating system for controlling communication between the network controllers.

12. (Original) The cluster of claim 9, wherein the set of data is the metadata of the cluster system.

13. (Original) The cluster of claim 9,
wherein the first server and the second server are geographically separate from one another;
wherein each network controller includes a local operating system for controlling communication between the network controllers; and
wherein the set of data is the metadata of the cluster system.

14. (Amended) A method for operating a cluster to preserve the operational integrity of the servers of the cluster system in the event of a failure to a server, the cluster having first and second servers coupled between one another at a network interface controller, comprising the

steps of:

storing in the local memory of each network interface controller a copy of a set of data describing the operational status of the data served by the first and second servers;

providing to each of the network interface controllers of the first and second servers a local power source; and

wherein the network interface controllers are operable to communicate with one another to update the set of data despite the operational ~~operation~~ failure of at least one of the associated servers.

15. (Original) The method for operating a cluster of claim 14, wherein the first and second servers are geographically separated.

16. (Original) The method for operating a cluster of claim 14, wherein the set of data is metadata describing the data served by the first and second servers.

17. (Original) The method for operating a cluster of claim 14, wherein each of the first and second network interface controllers includes an operating system that permits the controllers to communicate with one another despite the operational failure of at least one of the associated servers.

18. (Original) The method for operating a cluster of claim 14, further comprising the step of making a change to the set of data by performing a write operation, wherein changes to the set of data are effected by performing a write operation to the memory of each network

interface controller such that the content of the set of data of each network interface controller is the same.

19. (Original) The method for operating a cluster of claim 18, wherein the step of performing a write operation includes the step of transmitting an acknowledge signal to the other server following the completion of a successful write operation by a server.

20. (Original) The method for operating a cluster of claim 19, wherein the write operation is atomic such that the results of the write operation are discarded in the event that an acknowledge signal is not received by each server.